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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of: )  
Strobel et al. ) Ex: Henry Tsai  
Title: METHOD FOR MAKING DIE BOARDS )  
AND MATERIALS AND APPARATUS ) Group Art Unit: 2183  
FOR PRACTICING THE METHOD )  
Serial No.: 09/558,575 )  
Filed: April 26, 2000 ) (Our Docket No. 0048R-1229-1)

Hartford, Connecticut, November 23, 2004

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Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

APPEAL BRIEF

S I R:

This appeal is taken from the Office Action mailed on August 25, 2004 in  
which claims 30-32 of the above-referenced application were rejected under 35  
U.S.C. § 102(b).

REAL PARTY IN INTEREST

The real party in interest in the above-referenced patent application is:

Gerber Scientific, Inc.  
83 Gerber Road West  
South Windsor, CT 06074  
USA

#### RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences of which Applicants are aware regarding the above-referenced application.

#### STATUS OF CLAIMS

Claims 30-32 are pending in the present application. Claims 30-32 stand rejected under 35 U.S.C. § 102(b). All rejected claims are presented to the Board in this Appeal.

#### STATUS OF AMENDMENTS

No amendments were file subsequent to the Final Office Action dated August 25, 2004.

#### SUMMARY OF CLAIMED SUBJECT MATTER

The present invention resides in a rotary cutting tool (152) for generating slots (16) in die boards. (See, in general, page 8, line 31 to page 9, line 8, and FIGS. 9 and 10). The rotary cutting tool (152) comprises a first cutting portion (154) that is non-tapered and defines a first outer diameter (d1). (See page 8, lines 31-34, and FIGS. 9 and 10). A second cutting portion (156) is non-tapered and defines a second outer diameter (d2) extending from and coaxial with the first cutting portion (154). See page 8, lines 34 and 35). The second outer diameter (d2) is different from the first outer diameter (d1). (See FIGS. 9 and 10). The second cutting portion (156) defines a generally cylindrical, outer peripheral surface. Preferably, the first and second cutting portions (154, 156) are each generally cylindrical. (See FIGS. 9 and 10). Each of the first and second cutting portions (154, 156) is defined in part by at least two helical cutting flutes (160) extending longitudinally. (See page 8, lines 38-40).

The rotary cutting tool (152) may further include a tapered portion (158) interposed between the first cutting portion (154) and the second cutting portion (156). The tapered portion (158) has a diameter that progressively decreases from the first outer diameter (d1) to the second outer diameter (d2). (See page 8, lines 36-40).

#### GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The issue to be resolved is whether claims 30-32 are anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 4,936,721 to Meyer (hereinafter "Meyer").

#### ARGUMENT

Claims 30-32 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Meyer. Applicants respectfully submit that the Examiner's grounds of rejection are not well-founded.

#### Rejection of Claim 30

Meyer is directed to a drill/reamer bit having a drill portion formed by cutting edges at the end of a plurality of flutes. A reamer portion is contiguous with the drill portion and includes a first relief formed on each flute surface disposed at a predetermined angle with respect to the flute surface to form a first reamer cutting edge. A second relief is formed contiguous with the first face on each reamer portion and is disposed at a second angle, less than the first angle with respect to the flute surface.

Meyer is non-analogous art. Meyer is directed to a drill/reamer bit which by its nature is adapted to form, enlarge or shape holes. The construction of a drill or reamer bit is not adapted to generate slots. In other words, the drill/reamer bit of Meyer cannot simply be substituted for the rotary cutting tool of the present invention and be expected to generate slots in a die board. The preamble of the claimed invention "for generating slots in die boards" is not just an intended use that does not limit the scope of protection as alleged by the Examiner. Because the

construction and function of a drill/reamer bit and a rotary cutting tool for generating slots are clearly distinct, someone skilled in the pertinent art of generating die board slots would not be motivated to consult the teachings of Meyer.

Moreover, Meyer does not teach or suggest a rotary cutting tool for generating die board slots having a first cutting portion that is non-tapered and defining a first outer diameter, and having a second cutting portion that is non-tapered and defining a second outer diameter, the second outer diameter being different from the first outer diameter, as recited in claim 30 of the present application. Rather, Meyer shows a drill/reamer bit 10 having spiral flutes 18, 20 extending over a tapering cross-section of the bit from a cutting tip 22 to a cylindrical body 12 as shown in FIG. 1. The non-tapered cylindrical body 12 of the drill/reamer bit 10 generally defines a smooth surface, and therefore does not serve as a cutting surface. Indeed, there is no clear distinction in the drill/reamer bit 10 disclosed in Meyer between first and second non-tapered cutting portions having different diameters relative to each other. Providing cutting portions with different diameters permits the smaller diameter cutting portion to generate a slot in a die board having a width adapted for receiving and grippingly retaining a die board rule, and the larger diameter cutting portion to provide strength and stability to the rotary cutting tool while generating a slot during a cutting operation.

To anticipate a claim under 35 U.S.C. §102, a single reference must disclose each and every element of the claimed invention. Lewmar Marine Inc. v. Barient Inc., 3 U.S.P.Q. 2d 1766, 1767 (Fed. Cir. 1987). Absence from the reference of any claimed element negates anticipation. Kloster Speedsteel AB v. Crucible Inc., 230 U.S.P.Q. 81, 84 (Fed. Cir. 1986). Because Meyer does not teach or suggest a rotary cutting tool for generating slots in die boards comprising a first cutting portion that is non-tapered and defining a first outer diameter, and a second cutting portion that is non-tapered and defining a second outer diameter wherein the second outer diameter is different from the first outer diameter, it cannot be maintained that Meyer anticipates claim 30.

### Rejection of Claim 31

As mentioned above, there is no clear distinction in the drill/reamer 10 disclosed in Meyer between first and second non-tapered cutting portions having diameters different from each other. It therefore follows that Meyer does not teach or suggest a rotary cutting tool for generating slots in die boards wherein a tapered portion is interposed between such non-tapered cutting portions, as generally recited in claim 31 of the present application.

For an anticipation rejection to be appropriate, each and every element in a rejected claim must be disclosed in a single prior art reference used in the claim rejection. Because Meyer does not teach or suggest a rotary cutting tool including a tapered portion interposed between a first cutting portion and a second cutting portion, wherein the tapered portion has a diameter that progressively decreases from the first outer diameter to the second outer diameter, it cannot be maintained that Meyer anticipates claim 31. Moreover, claim 31 depends from and thereby incorporates the elements of claim 30. Accordingly, claim 31 is also not anticipated by Meyer for the reasons set forth for claim 30.

### Rejection of Claim 32

With reference to FIG. 2 of Meyer, the drill/reamer bit 10 has an elongated cross-section wherein the width of the bit 10 as shown in the horizontal direction in FIG. 2 is significantly greater than the width of the bit as shown in the vertical direction in FIG. 2. Consequently, Meyer does not disclose a rotary cutting tool for generating slots in die boards including a cutting portion that is generally cylindrical, much less disclose first and second cutting portions that are each generally cylindrical, as recited in claim 32 of the present application.

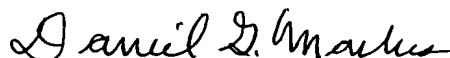
For an anticipation rejection to be appropriate, each and every element in a rejected claim must be disclosed in a single prior art reference used in the claim rejection. Because Meyer does not teach or suggest a rotary cutting tool wherein the first and second cutting portions are each generally cylindrical, it cannot be

maintained that Meyer anticipates claim 32. Moreover, claim 32 depends from and thereby incorporates the elements of claim 30. Accordingly, claim 32 is also not anticipated by Meyer for at least the reasons set forth for claim 30.

In view of the foregoing, it is respectfully submitted that the rejection of claims 30-32 is not well-founded. Accordingly, Applicants respectfully request this Board to reverse the Examiner's rejection and to allow the application under appeal to issue as a patent.

A check in the amount of \$340.00 is submitted herewith for covering the fee for filing the Appeal Brief. No additional fees or deficiencies in fees are believed to be owed. However, authorization is hereby given to charge our Deposit Account No. 13-0235 in the event any such fees are owed.

Respectfully submitted,

By   
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## CLAIMS APPENDIX

30. A rotary cutting tool for generating slots in die boards comprising:  
a first cutting portion that is non-tapered and defining a first outer diameter,  
and a second cutting portion that is non-tapered and defining a second outer  
diameter extending from and coaxial with said first cutting portion, the second outer  
diameter being different from the first outer diameter;  
said second cutting portion defining a generally cylindrical, outer peripheral  
surface; and wherein  
each of said first and second cutting portions are defined in part by at least  
two helical cutting flutes extending longitudinally.

31. A rotary cutting tool as defined by claim 30 further including a tapered  
portion interposed between the first cutting portion and the second cutting portion,  
the tapered portion having a diameter that progressively decreases from the first  
outer diameter to the second outer diameter.

32. A rotary cutting tool as defined by claim 30 wherein said first and  
second cutting portions are each generally cylindrical.